

ABSTRACT OF THE DISCLOSURE

A method for coherently tracking a radio signal including at least one digitally modulated reference carrier is provided, wherein the method comprises the steps of demodulating the reference carrier to produce complex coherent reference gains, detecting a transient that affects the complex coherent reference gains, and adjusting the complex coherent reference gains in the vicinity of the transient to produce adjusted complex coherent reference gains. The transient can be caused by switching among the antenna elements or impulsive noise. Receivers that process signals in accordance with the method, and a method of estimating noise variance of symbols in a radio signal are also provided.